

CLAIMS

1. A double-cone device (300) of continuous geometry for creating a pressure difference in a fluid flowing through the device, the device comprising:
 - 5 a. a first tapering section (302) of essentially hollow frustoconical shape; and
 - b. a second diverging section (304) of essentially hollow frustoconical shape,
wherein the section of minimum diameter of the device is an
10 orifice 308 of the device,
wherein the second diverging section has a plurality of holes (306) on its surface beyond the orifice in order to achieve suction.
2. The device according to claim 1, wherein conical angle
15 of the first tapering section is greater than 0° and at most 10° , preferably at most 5° .
3. The device according to claim 1, wherein conical angle
of the second diverging section is greater than 0° and at most 10° , preferably at most 4° .
- 20 4. The device according to claim 1, wherein the holes are of circular shape.
5. The device according to claim 1, wherein the holes are inclined in the direction of the flow of the fluid.

6. The device according to claim 1, wherein the holes have diameter that is less than half the diameter of the orifice section.
7. The device according to claim 1, wherein the holes are made at the orifice.
8. The device according to claim 1, wherein the holes are made on a portion of the second diverging section with diameter greater than the diameter of the orifice and less than 1.5 times the diameter of the orifice.
- 10 9. A double-cone device (400) of continuous geometry for creating a pressure difference in a fluid flowing through the device, the device comprising:
 - a. a first tapering section (302) of essentially hollow frustoconical shape;
 - 15 b. a second porous diverging section (402) of essentially hollow frustoconical shape to achieve suction; and
 - c. a third diverging section (304) of essentially hollow frustoconical shape, extending from the end of the porous section;
- 20 10. The device according to claim 9, wherein conical angle of the first tapering section is greater than 0° and at most 10°, preferably at most 5°.
11. The device according to claim 9, wherein conical angle of the third diverging section is greater than 0° and at most 10°, preferably at most 4°.

12. The device according to claim 9, wherein the porous section has larger diameter greater than smaller diameter of the first tapering section and less than 1.5 times the smaller diameter of the first tapering section.
- 5 13. A double-cone device (500) for creating a pressure difference in a fluid flowing through the device, the device comprising:
- a. a first tapering section (502) of essentially hollow frustoconical shape;
- 10 b. a second diverging section (504) of essentially hollow frustoconical shape; and
- c. an insert section (506) having a central hollow frustoconical portion, the hollow portion having the smaller diameter end matched to the smaller diameter end of 15 the first tapering section and the larger diameter end matched to the smaller diameter end of the second diverging section, the insert extending from the smaller diameter end of first tapering section to the beginning of the second diverging section, wherein the insert section has a 20 plurality of radial holes on the central hollow portion to facilitate suction.
14. The device according to claim 13, wherein conical angle of the first tapering section is greater than 0° and at most 10°.
- 25 15. The device according to claim 13, wherein conical angle of the second diverging section is greater than 0° and at most 10°, preferably at most 2°.